

1. Description

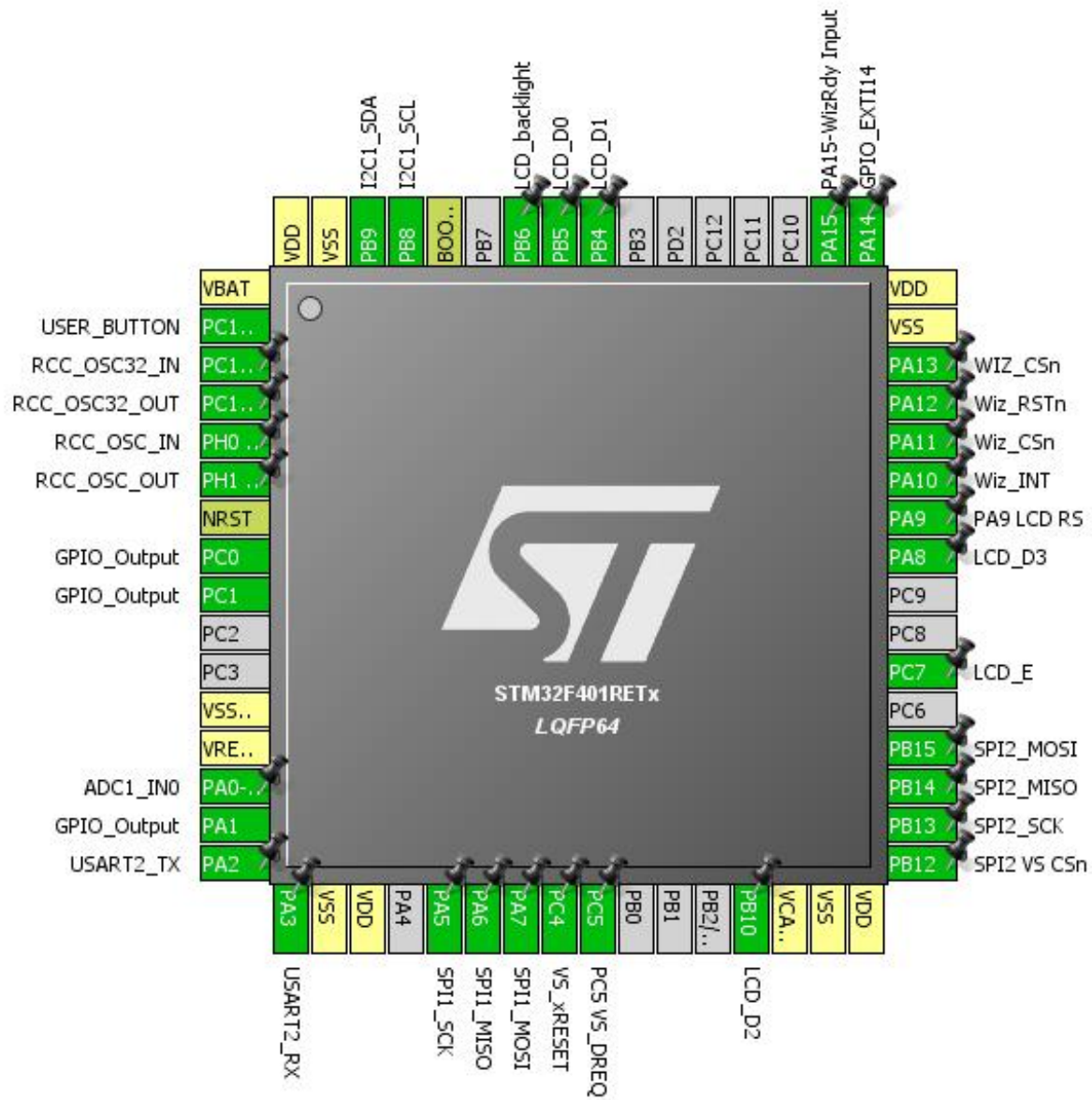
1.1. Project

Project Name	FreeRTOS_Nucleo_2
Generated with:	STM32CubeMX 4.3.0
Date	07/30/2014

1.2. MCU

MCU Serie	STM32F4
MCU Line	STM32F401
MCU name	STM32F401RETx
MCU Package	LQFP64
MCU Pin number	64

2. Pinout Configuration



3. IPs and Middlewares Configuration

IP	Mode	Fonction	Pin
ADC1	IN0	ADC1_IN0	PA0-WKUP
CRC	Activated	N/A	N/A
I2C1	I2C: I2C	I2C1_SCL	PB8
		I2C1_SDA	PB9
RCC	High Speed Clock (HSE): Crystal/Ceramic Resonator	RCC_OSC_IN	PH0 - OSC_IN
		RCC_OSC_OUT	PH1 - OSC_OUT
	Low Speed Clock (LSE) : Crystal/Ceramic Resonator	RCC_OSC32_IN	PC14-OSC32_IN
		RCC_OSC32_OUT	PC15-OSC32_OUT
SPI1	Mode: Full-Duplex Master	SPI1_MISO	PA6
		SPI1_MOSI	PA7
		SPI1_SCK	PA5
SPI2	Mode: Full-Duplex Master	SPI2_MISO	PB14
		SPI2_MOSI	PB15
		SPI2_SCK	PB13
TIM1	Clock Source : Internal Clock	N/A	N/A
TIM2	Clock Source : Internal Clock	N/A	N/A
USART2	Mode: Asynchronous	USART2_RX	PA3
		USART2_TX	PA2

MiddleWare	Mode
FREERTOS	Enabled

4. Pins Configuration

Pin	Pos	Function(s)	Label
PC13-ANTI_TAMP *	2	GPIO_Input	USER_BUTTON
PC14-OSC32_IN	3	RCC_OSC32_IN	
PC15-OSC32_OUT	4	RCC_OSC32_OUT	
PH0 - OSC_IN	5	RCC_OSC_IN	
PH1 - OSC_OUT	6	RCC_OSC_OUT	
PC0 *	8	GPIO_Output	
PC1 *	9	GPIO_Output	
PA0-WKUP	14	ADC1_IN0	
PA1 *	15	GPIO_Output	
PA2	16	USART2_TX	
PA3	17	USART2_RX	
PA5	21	SPI1_SCK	
PA6	22	SPI1_MISO	
PA7	23	SPI1_MOSI	
PC4 *	24	GPIO_Output	VS_xRESET
PC5 *	25	GPIO_Input	PC5 VS_DREQ
PB10 *	29	GPIO_Output	LCD_D2
PB12 *	33	GPIO_Output	SPI2 VS CSn
PB13	34	SPI2_SCK	
PB14	35	SPI2_MISO	
PB15	36	SPI2_MOSI	
PC7 *	38	GPIO_Output	LCD_E
PA8 *	41	GPIO_Output	LCD_D3
PA9 *	42	GPIO_Output	PA9 LCD RS
PA10 *	43	GPIO_Input	Wiz_INT
PA11 *	44	GPIO_Output	Wiz_CSn
PA12 *	45	GPIO_Output	Wiz_RSTn
PA13 *	46	GPIO_Output	WIZ_CSn
PA14	49	GPIO_EXTI14	
PA15 *	50	GPIO_Input	PA15-WizRdy Input
PB4 *	56	GPIO_Output	LCD_D1
PB5 *	57	GPIO_Output	LCD_D0
PB6 *	58	GPIO_Output	LCD_backlight
PB8	61	I2C1_SCL	
PB9	62	I2C1_SDA	

* The pin is affected with an I/O function

5. Power Plugin report

5.1. Microcontroller Selection

Serie	STM32F4
Line	STM32F401
MCU	STM32F401RETx
Datasheet	025644_Rev2

5.2. Parameter Selection

Temperature	25
Vdd	3.3

5.3. Battery Selection

Battery	Not set
Capacity	0.0 mAh
Self discharge	0.0 %/month
Nominal voltage	0.0 V
Max Cont Current	0.0 mA
Max Pulse Current	0.0 mA
Cells in series	1
Cells in parallel	1

6. Software Project

6.1. Project Settings

Name	Value
Project Name	FreeRTOS_Nucleo_2
Project Folder	\\VBOXSVR\EmBlock2\NewProject1
Toolchain / IDE	TrueSTUDIO 4.3.1
Firmware Package Name and Version	STM32Cube FW_F4 V1.3.0

6.2. Code Generation Settings

Name	Value
STM32Cube Firmware Library Package	Copy all used libraries into the project folder
Generate peripheral initialization as a pair of '.c/.h' files	Yes
Backup previously generated files when re-generating	No
Delete previously generated files when not re-generated	Yes
Set all free pins as analog (to optimize the power consumption)	No

6.3. Toolchains Settings

Name	Value
Compiler Optimizations	Balanced Size/Speed